

**Lal Baba Seamless Tubes Pvt. Ltd.**

[AN IATF16949:2016, ISO 9001:2015,  
ISO 14001:2015, ISO 45001:2018 Certified Company]

Corporate Office  
27, Shakespare Sarani, 3rd Floor  
Kolkata - 700 017, West Bengal, India  
Tel : +91 33 4008 0579  
Email : sales@lbtubes.com Website : www.lbtubes.com  
CIN No. U27310WB2006PTC110060



LAL BABA SEAMLESS TUBES

DOC. No: LBS T/QAR/15 Rev.05 Dt: 06.01.2021

MILL TEST CERTIFICATE													
CERTIFICATE ACCORDING TO EN 10204 : 3.2													
PURCHASER NAME :			OPTIMA STEEL INTERNATIONAL LLC.				TEST CERTIFICATE No.:			1835/2021			
PURCHASER ORDER No. :			PO-40433 (PO NO. 10P36608) rev.3				Date :			23-12-2021			
WORK ORDER No. :			LBS T / WO / EXP / 5489 rev.3				Date :			14-01-2021			
NAME OF STEEL SUPPLIER :			BHUSHAN POWER & STEEL LTD. - INDIA - Melt & Pour				INVOICE NO:			-			
STEEL MAKING METHOD :			BF-EAF-LRF-CCM-(EMS)-RM, Fully Killed				INVOICE Date :			-			
PROCESS OF PIPE MANUFACTURE :			CDS / CS / PIPES				CUSTOMER UID NO			ITEM NO: 5			
MANUFACTURE PROCESS ROUTE :			PM-HI-STP-CD-HT-Finishing-NDT-P&F-Dispatch.				ASTM A106 GR.B(Ed.2015)/ASME SA106 GR.B(Ed.2019) // ASTM A53 GR.B(Ed.2012)/ASME SA53 GR.B(Ed.2019), NACE MR0175 / NACE MR0103						
SPECIFICATION & GRADE :													
Sr. No.	LBS T HEAT NO	SUPPLIER HEAT NO	SIZE				Quantity			General			
			OD (inch)	ID (inch)	WT (inch)	Length (Feet)	No.	FEET.	MT.	End Condition	Coating		
1	BA5149	21E3790	OD 1-1/4" x WT 0.1400" x 21 FEET				239	5019.00	-	Plain End	Black paint		
CHEMICAL COMPOSITION (%)													
Sr. No.	HEAT NO	REQUIRED	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%V	%C.E
		Min	-	0.29	0.10	-	-	-	-	-	-	-	-
		Max	0.30	1.06	-	0.035	0.035	0.40	0.40	0.40	0.16	0.08	-
1	21E3790	L/A	0.19	0.72	0.13	0.010	0.009	0.032	0.004	0.000	0.002	0.002	0.321
		P1/A	0.19	0.71	0.14	0.011	0.008	0.033	0.005	0.004	0.002	0.002	0.314
		P2/A	0.19	0.71	0.14	0.011	0.009	0.032	0.005	0.004	0.002	0.002	0.311
MECHANICAL PROPERTIES													
Sr. No.	HEAT NO	REQUIRED	YIELD STRENGTH (Psi)	TENSILE STRENGTH (Psi)	ELONGATION (%)	HARDNESS (BHN)	IMPACT TEST	BEND TEST	FLARING TEST	GRAIN SIZE			
		Min	35000	60000	30	237	-	-	-	-			
		Max	-	-	-	1323-125	NA	OK	NA	NA			
1	BA5149		43917	72052	48.40	1323-125	NA	OK	NA	NA			
NON-DESTRUCTIVE TEST													
Sr. No.	HEAT NO	REQUIRED	HYDRO-STATIC TEST as per AS30 & holding time 5 sec min(100%)	E.C.T. as Per ASTM E-309 (100%)	U.T. AS PER ASTM E-213 (100%)	VDI	IN SIDE / OUT SIDE	RA VALUE	PMI				
		STRAIGHTNESS	Satisfactory	2500 PSI, OK	OK	NA	Satisfactory	Satisfactory	NA	NA			
1	BA5149		Satisfactory	2500 PSI, OK	OK	NA	Satisfactory	Satisfactory	NA	NA			
Heat Treatment : Heat Treated Above 650°C (1200°F)													
MARKING: LBS T / CDS / ASTM A53 B/ASME SA53-B/1068 / SA106B / NACE MR 0175 / NACE MR 0103 / 1-1/4", STD x WT 0.1400" x 21.000 FEET / HEAT NO. BA5149 / NDE/ HYD. 2500 PSI / PO NO. 10P36608 / WEIGHT 21.71 KG													
REMARKS: 1. Hardness as per NACE. 2. We hereby certify that the material herein described has been Manufactured, Sample tested & Inspected in accordance with above standard, specification & P.O requirement & result found satisfactory.													
Legends : 1. L/A - Ladle Analysis, 2. P1/A - Product Analysis One, 3. P2/A - Product Analysis Two, 4. CDS= Cold Drawn Seamless, 5. CS = Carbon Steel, 6. PM - Piercing Mill, 7. HI - Hollow Inspection, 8. STP - Surface Treatment Plant, 9. CD= Cold Drawn, 10. HT - Heat Treatment, 11. NDT - Non Destructive Testing, 12. VDI= Visual Dimension Inspection, 13. P&F - Packing & Forwarding.													
For, LAL BABA SEAMLESS TUBES PVT. LTD.													
ISSUED BY:													
Kallpada Samanta ENGINEER (QA/QC)								Prashant Paul Asst. Manager (QA/QC)					



Plant & Registered Office  
Bardhanyaghata, Debhog, Midnapore (E)  
Haldia - 721 657, West Bengal, India  
Tel : +91 90516 00028

